Centurion University
Shaping Lives... Empowering Communities...

Workshop on

DGPS and GPR Training

Date: **8th to 13th April 2022**

Resource Person:

Dr. Prafulla Kumar Panda
Dr. Kamal Kumar Barik
Prof. K. C. Sethi
Department of Civil Engineering, CUTM

No. of Students and/or Faculty Participated: 57

Co-ordinator Details:

Dr. Prafulla Kumar Panda
Dr. Kamal Kumar Barik
Department of Civil Engineering, CUTM

Detailed report of the activity:

A training program on DGPS and GPR practice has been conducted by Department of Civil Engineering for the Civil Engineering Students of both graduation and Diploma levels. The workshop is conducted in offline mode and is completely hands-on-practice.

Objectives:

To learn the basic concept of DGPS surveying and its working principles.

To have a clear understanding of the principles of surveying with a DGPS and GPR.

To provide detailed information on the GPS signal, it's processing by the receiver, and the techniques by which GPS obtains position, velocity and time.

To present current information on the status, plans, schedule and capabilities of GPS, as well as of other satellite-based systems with position velocity and time determination applications.

The GPR is to make the participants familiar with advanced data processing and interpretation techniques to derive maximum amount of information from data collected.

Thorough training will be provided on use of R-GPR software to create 3D volumes and depth slices. GPR-SIM training will enhance interpretation capabilities of users.

Day1 (8/04/2022): Ist Half

Introduction to GPS, GPS System Overview, working principle of GPS, Satellite ranging and Position Calculation, GPS errors and their corrections, Differential Global Positioning System Basic Geodetic Aspects. On filed Demonsatrion.

Day-1(8/04/2022):2nd Half

Receiver set up, Configuration of the receiver, Configuration of the terminal, Satellite tracking, Localizations of WGS 84 Coordinates Different parameters setting and Data storing. On filed Demonsatrion.

Day-2(9/04/2022):

Reference Line, Longitudinal & Traverse Profiles, Surveying Using GPS, Static Surveys, Rapid Static Surveys, Kinematic Surveys, Real Time Kinematic Surveys, Processing of GPS survey data, Plotting of GPS survey data, Establishing stations and TBMs with reference to Survey of India BM (Control Points).

Day-3 (10/04/2022):Ist Half

Stake out of the measured points and offsets, Self-survey mode (absolute positioning).

Static Surveys and rapid static survey and Kinematic and RTK surveys

Day-3 (10/04/2022):2nd Half

Post processing of surveyed data and exporting the data to AutoCAD/GIS

Topographic surveys using RTK mode and establishing control points using static mode

Day-4 (11/04/2022):

Introduction to Ground Penetrating Radar Method, Field Procedure and Approaches for GPR Surveys, Antenna selection, frequency v/s depth, Various Antenna Configurations in various applications, Data acquisition, data handling

Day-5 (12/04/2022):

Data Processing: High pass, low pass filters Time-depth conversion3D & time/ depth slice generation using R-GPR.

Day-6 (13/04/2022):

Utility locating GPR imaging field projects

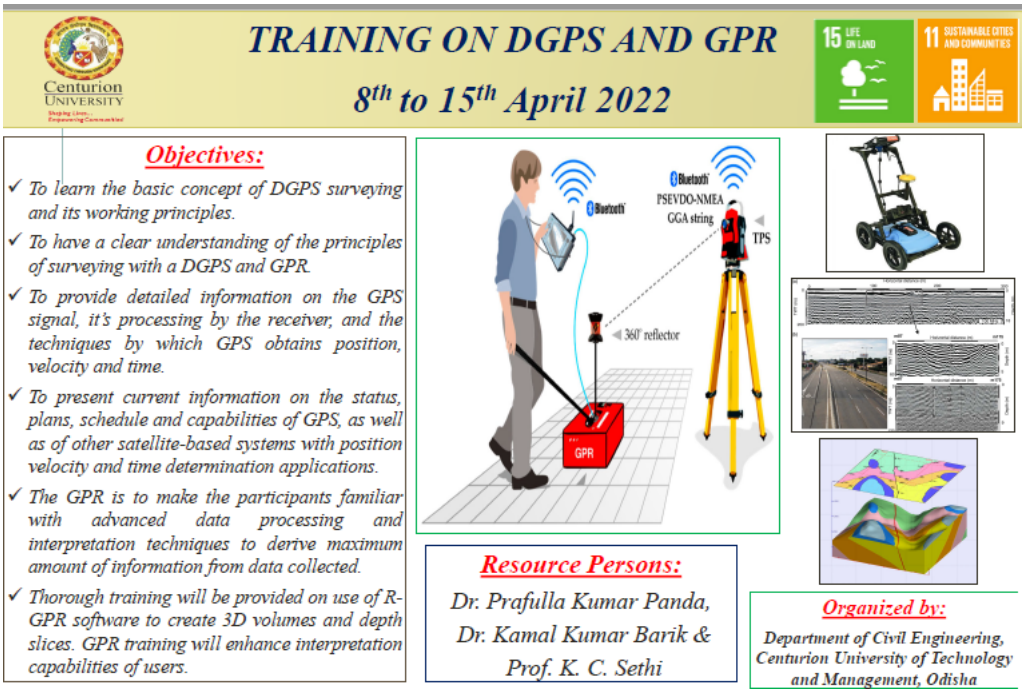
Geo-tagged Photographs of the event with date and caption:

List of Students/Faculty Attended **or** Scan Copy of Students Signature Sheet:

Sl No	Name	Registration No
1	MD SHAHUD ANSARI	191107110112
2	SUNNY KUMAR	191107120045
3	PRABHAT PADHY	191107130002
4	SAGAR NAYAK	191107130003
5	SANJIVU PAVAN KUMAR	191107130005
6	TABASSUM ROZY	191107130007
7	RAM KARAN KUMAR	191107130008
8	SAKSHI KUMARI	191107130010
9	KRISH KUMAR	191107130012
10	PRASHANT KUMAR YADAV	191107130013
11	ALRIYAZ UZZAMA	191107130014
12	SONAKSHI KUMARI	191107130015
13	AKSHAY KUMAR	191107130016
14	MUKUL RAJ	191107130017
15	SATYAM KUMAR	191107130018
16	PANDAV KUMAR	191107130022
17	RAUSHAN KUMAR	191107130023
18	ANKIT KUMAR	191107130024
19	AMAN KUMAR	191107130025
20	SURAJ KUMAR	191107130027
21	AJIT KUMAR	191107130028
22	SUJIT KUMAR	191107130029
23	SUMIT KUMAR	191107130030
24	DEEPAK KUMAR	191107130031
25	RANJAN KUMAR	191107130032
26	GAURAV KUMAR	191107130033
27	SUDARSHAN KUMAR	191107130034
28	KAUSHAL KUMAR	191107130035
29	JITENDRA KUMAR	191107130036
30	VIKRAM KUMAR	191107130037
31	SAURAV KUMAR	191107130038

32	ROBIN KUMAR	191107130039
33	PANKAJ KUMAR	191107130043
34	PRITY KUMARI	191107130045
35	SWEETY KUMARI	191107130046
36	AJIT KUMAR	191107130049
37	AMAN RAJ	191107130050
38	RITU RAJ BASANT	191107130053
39	AARYAN SINGH	191107130054
40	PRAMOD KUMAR	191107130055
41	ANAND PANDEY	191107130056
42	RAMESH KUMAR	191107130060
43	NITIN SAURAV	191107130061
44	LALBABU KUMAR	191107130062
45	RANJAN KUMAR	191107130063
46	CHHATHU SHARMA	191107130071
47	SUNNY RAJ	191107130075
48	PRITI KUMARI	191107130079
49	NIKITA KUMARI	191107130080
50	PRITAM KUMAR	191107130082
51	SURAJ KUMAR	191107140022
52	NAVEEN KUMAR RAI	191107130083
53	VIVEK KUMAR	191107130084
54	NEVV KUMAR	191107130087
55	AMIT KUMAR	191107130089
56	BIMLESH KUMAR	191107130090
57	NIKHIL KUMAR	191107140034

Brochure related to the event:



Dr. Prasanta Ku. Mohanty
Dean Academic